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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,441	09/15/2003	Stephen J. Rogier	380804.00109	1596

7590 02/07/2005  
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EXAMINER

RIVELL, JOHN A

ART UNIT PAPER NUMBER

3753

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/663,441	<b>Applicant(s)</b> ROGIER, STEPHEN J.	
	<b>Examiner</b> John Rivell	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 9/15/03 (application).
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The drawings are objected to because the lines are ruff and blurred, reference numerals are not clear, blackened area of some figures reflect incorrect cross hatching, copier marks in figures, etc. In general, they appear to be informal. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 1-11 are pending.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne in view of Goodyear.

The patent to Payne discloses "a combination inflation and relief valve, comprising a valve body (16) in which is operatively mounted a reciprocating stem (22) and stem head (25), said stem head (25) including an inflation gasket (30) resiliently urged in sealing engagement with an inflation valve seat (21) of the valve body by means of an inflation spring (33) entrained about the stem between said stem head and a poppet (disclosed as a spring retaining element in the instant specification and thus read at 19 in Payne) mounted to an end of said stem (22), said stem head further including at least one relief hole (within seat 26) that is sealed by means by a relief gasket (27) mounted on a push disk (24 and)... a relief spring (32)" as recited in claim 1.

The patent to Payne thus discloses all the claimed features with the exception of having "said push disk (24) being reciprocatably coupled to the stem (22) to urge said relief gasket in sealing engagement with said relief hole by means of (the) relief spring (32)".

These features called for by the claims are directed to elements peculiar to bi-directional check valves which are not exclusive to inflation/deflation systems but can be found in any art to which bi directional checked fluid flow is desired.

The patent to Goodyear discloses that it is known in the art to employ, in a bi-directional check valve device, a first valve head 12, responsive to the pressure difference across the valve head between the inlet at 9 and the outlets at 7, seating against the valve body at 8 and carrying a second, opposite working check valve head 15 which seats on the first valve head 12 and slides on valve stem 16 to operate in response to the pressure differential across the valve from inlets at 7, through port 14 in

the first valve head 12 and outlet at 9 against the bias of a second spring 18 different from the first spring 13 for the purpose of establishing bi-directional checked fluid flow.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Payne, a sliding valve head at valve 24 for the purpose of establishing bi-directional checked fluid flow as recognized by Goodyear. Such a modification is considered to be a full mechanical and functional equivalent of the deflation check valve 24 of Payne. Regarding claim 11, when the valve device of Payne is constructed "without" the relief valve 24 and its associated hardware, the device remains as an inflation valve as recited. The remaining limitations of the remaining claims are considered to be apparent.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Payne in view of Goodyear as applied to claims 1-3, and 5-11 above, further in view of Orchowski.

The patent to Payne, as modified by Goodyear, discloses all the claimed features with the exception of having an "angular surface" on the inflation gasket head to seal with inflation seat.

The patent to Orchowski discloses that it is known in the art to employ an angular surface at frustoconical valve head 35 mating with an associated frustoconical seat surface on the inflation valve of the combined inflation/deflation valve for the purpose of increasing the surface area of contact between the valve head and seat thus perfecting fluid tight closure therebetween.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Payne, as modified by Goodyear, an angular frustoconical surface of the inflation valve sealing head gasket and seating surfaces for

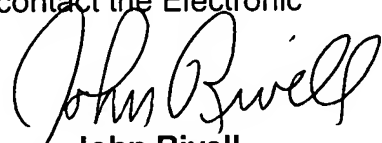
the purpose of increasing the surface area of contact between the valve head and seat thus perfecting fluid tight closure therebetween as recognized by Orchowski.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (571) 272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.